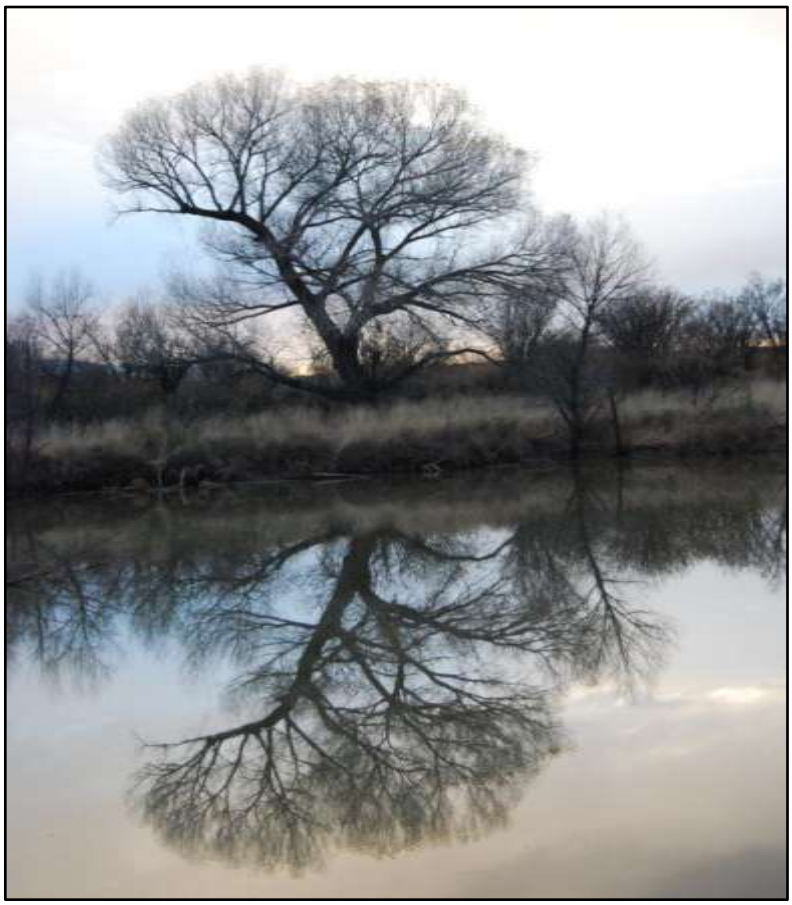


San Pedro Riparian National Conservation Area

National Landscape Conservation System

FY 2009 Annual Manager's Report

NATIONAL LANDSCAPE CONSERVATION SYSTEM

FY 2009 Manager's Annual Report

Site Name: San Pedro Riparian National Conservation Area
Manager: Mark Rekshynskyj
Address: San Pedro Office, 1763 Paseo San Luis, Sierra Vista, AZ 85635
Phone: (520) 439-6400
Website: http://www.blm.gov/az/st/en/prog/blm_special_areas/ncarea/sprnca.html

San Pedro Project Office, Tucson Field Office, Gila District, Arizona State Office
Arizona-Idaho Conservation Act, Public Law 100-696 (November 18, 1988)
Acreage: approximately 57,000 acres of public, state and private land within its designated boundaries.
Estimated Annual Visitation: 113,325

1. Natural and Heritage Resources Conditions

a. Overview

- The overall condition of the heritage resources in the San Pedro Riparian National Conservation Area (SPRNCA or NCA) varies greatly. The prehistoric resources are in stable condition. The majority of historic resources (90%) that have not been stabilized are in very poor condition. Seven percent of properties that have been stabilized are in fair condition. Properties that have either been restored or that are in the process of being restored are in excellent condition include the San Pedro House and the Fairbank Schoolhouse.
- Proper Functioning Condition (PFC) evaluations were completed on 10 miles of riparian corridor in the SPRNCA during 2009. A total of six sections were evaluated, three each on the San Pedro River and within Curry Draw. The sections on the San Pedro River and within Curry Draw were continuous.
- Permanent upland monitoring plots were established on the SPRNCA beginning in 1987. During FY 2009, 12 permanent pace frequency transects were monitored, representing approximately 2,400 acres. Of the twelve transects completed, eleven transects had statistically significant changes in frequency of selected vegetation from 1987 to 2009.

Natural and Heritage Resource Trends

- The overall condition and trend of both the natural and heritage resources is fair.

Land Health Assessments

There are four grazing allotments within the SPRNCA. Land Health Assessments were completed on three of the four allotments in FY 2009. This method involves observing a set of physical and biological attributes at a site to determine upland health. The allotments assessed were Three Brothers, Brunchow Hill, and Lucky Hills.

- The Upland Health Assessment, done on Brunchow Hill, showed soil/site stability, and hydrologic functions meet expectations when compared to reference area conditions. The biotic integrity function is slightly impaired due to higher than expected numbers of mesquite, whitethorn, and some invasion of the exotic Lehmann lovegrass.
- The Upland Health Assessment, done on Three Brothers, showed soil/site stability, and hydrologic functions meet expectations when compared to reference area conditions. The biotic integrity function is slightly impaired due to higher than expected numbers of creosote and some invasion of the exotic Lehmann lovegrass.
- The Upland Health Assessment, done on Lucky Hills, indicated the soil and site stability, hydrologic, and biotic integrity functions are meeting expectations for the site.

Prescribed Fire

- There were no prescribed fires done on the San Pedro Riparian National Conservation Area in 2009.

Inventory

- We continue to inventory and assess the various aquatic, wildlife, archeological, paleontological, cultural, and recreational resources annually. We also support scientific research in the unit that will provide information to close the data gap and provide for future management decisions. Research also has been valuable in assessing conditions, determining trends , and developing recommendations to improve management of diverse resources.
- All 43 miles of river have been inventoried and assessed for native fish species. We continue to document that only two of the thirteen native fishes inhabit the resource. The majority of the fish habitat is unsuitable for reintroduction of the eleven species no longer in the system. This is due to water quantity and quality issues, and exotic species that have invaded the river.
- The BLM wildlife biologist completed a herpetological checklist of the San Pedro Riparian NCA, with printing donated by the Friends of the San Pedro River.

Restoration

Presidio Santa Cruz de Terrenate Stabilization: A protective mud coating was re-applied to the remaining walls of this 1776 Spanish fortress with assistance from the National Park Service and volunteers from the Arizona Site Stewards and Friends of the San Pedro River. Staff also provided oversight for ongoing research excavations at the site.

Fairbank Mercantile Stabilization and Repair: Several site improvement projects were undertaken during work days by BLM-SPO staff, including:

- replacement of delaminated lime plaster on the reconstructed south wall
- removal of vegetation that posed foundation and trip hazards
- repair to eroded and missing adobe

- repair to gutters and fascia damaged by tree limbs
- mitigation of sinkholes in areas surrounding building
- removal of old shoring and clean-up of lumber, debris, and construction materials
- development and award of contract for repair, reconstruction, and installation of doors and windows (contract work was completed early in FY 2010)

2. Recreation Facilities, Roads, and Trail Conditions

a. Overview

- The physical condition of recreation facilities, roads and trails within the SPRNCA is fair.
- Routine, regular, but minimal, maintenance is completed each year on all eleven trailheads within the National Conservation Area and recreation sites, which include, the San Pedro House Bookstore and Information Center and the Fairbank Schoolhouse--jointly operated by BLM and the Friends of the San Pedro River--and the Miller Backcountry Camping Area. Inability to maintain these facilities at higher levels of maintenance are due primarily to lack of staff and funding to accomplish the task. The overall condition of recreation facilities in the SPRNCA is fair to adequate.

The restored Fairbank Schoolhouse

- The majority of roads within the SPRNCA are administrative routes, open only for authorized or emergency usage. Road maintenance is done as needed or on an emergency basis rather than on a set schedule. Minimal funding is available for annual routine maintenance. The legal access road leading south to the international border has been impassable for eight years. This is due to the down cutting of a major drainage that crosses the route, and would require substantial funds to fix the problem. This is the only route that the general

public is able to use to access the interior of the San Pedro Riparian National Conservation Area. The Del Valle road leading south from the San Pedro House to Hereford Road has been impassable for two years. This is due to the down cutting of a major drainage that crosses the route that would require substantial funds to fix the problem. This is an administrative route only and does not impact the public's use of the San Pedro Riparian National Conservation Area. The overall condition of the roads in the SPRNCA is poor to adequate.

- Of the approximately 50 miles of designated non-motorized, multiple-use, trails within the SPRNCA, trail maintenance is carried out once to twice a year on the heaviest used trails, in close proximity to the recreation sites mentioned above. Other trails receive only cursory maintenance, unless there is an obvious issue of the safety of the trail for the public. The overall condition of the SPRNCA trail system is fair.

b. Construction

During FY 2009, no renovation or new construction of SPRNCA recreational facilities was accomplished. However, significant improvement in both renovation and maintenance funding was achieved through the award of monies available under the American Recovery and Reinvestment Act (ARRA). Under ARRA, beginning in early FY10, projects will commence including the renovation and re-construction of ten of the SPRNCA's eleven trailheads, with the work including: placement or replacement of portal, informational and directional signing; replacement of non-compliant visitor register/camping permit boxes; replacement of barbed-wire vehicle barriers with two-rail square-stock pipe rail fence; installation of traffic and trail monitors; installation of a permanent visitor use waste collection structure (single vault CXT); installation of equestrian hitching posts. Total expenditures for these privately-contracted projects will be approximately $580,000 over two years.

San Pedro Trail reconstruction performed by youth corps

In addition to funding for trailhead renovation, funds were awarded for the hiring of youth and conservation crews, especially for trail and basic recreational facilities maintenance and improvement. Funding for these crews of young people will amount approximately, $185,000 over two years.

c. Maintenance

- Staff has systematically worked towards placing infrastructure in place to further protect riparian and upland habitats. Annually we have installed new water gaps in major side drainages to prevent unauthorized livestock grazing and to detour unauthorized off-highway access to the San Pedro Riparian National Conservation Area
- We have completed deferred maintenance on a variety of historic and recreational facilities over the last five years. This represents approximately fifteen percent of the backlog maintenance.
- We have assessed the majority of our trails, recreation facilities and historic properties requiring deferred maintenance funding. A funding request totaling $440,000 for historic preservation and site stabilization has been submitted. The funding would be made available over the next three fiscal years.
- We would require ten percent more funding than represented above in order to maintain the majority of the San Pedro Riparian National Conservation Area's facilities to a higher standard. This would be accomplished by completing routine maintenance on existing recreation facilities, roads, and trails that are in good condition, or on those that are recently maintained using deferred maintenance.

Signage

- The sign plan for the SPRNCA is outdated, however, the vast majority of the signage in the unit, whether it be regulatory, safety, interpretive, or locational in nature, has been largely replaced within the past five years, and new signing funded by the ARRA will be installed next year. Signage was approved by the management team after consulting with BLM sign standards and guidelines. All portal signs and trailhead kiosks meet or exceed standards.

National Public Land Day at Murray Springs Clovis Site

3. Outreach, Environmental Education, Interpretation and Volunteers

a. Outreach

- Staff and the FSPR meet with community groups, clubs and other volunteer organizations to provide presentations about the SPRNCA and recreational opportunities. Around 150 presentations, guided walks, hikes and equestrian rides are provided each year by the FSPR. Each year the FSPR sponsor a docent training session over a month long. BLM staff and experienced FSPR docents instruct new docents about the SPRNCA to prepare them to lead hikes, walks and equestrian rides in the future.

b. Interpretation

- In partnership with FSPR, implemented a Cultural Docent program was implemented this year for interpretive tours of Fairbank, Murray Springs, and Millville historic sites.

- Working with FSPR and families of former residents, BLM-sponsored the Fairbank Reunion, an annual gathering attended by 50-60 participants. Several are involved in FY2010 effort to expand interpretive displays at the site.

- BLM staff gave two interviews to various media sources in Sierra Vista and Tucson.

- The SPRNCA has one page handouts for each of the eleven trailhead / parking areas and seven additional destination sites within the SPRNCA. We provide the public with a regulatory brochure and maps of the various locations and trails. BLM staff conducted interpretative walks, and conducted presentations to various schools and community organizations. Total visitation to the SPRNCA is estimated at approximately 113,325 annually.

- The main messages delivered to the public is the importance and significance of (a) riparian resources and the associated botanical and biological resources, (b) the prehistoric, Spanish settlement as well as the other historic resources and (c) the numerous recreational and interpretative opportunities.

c. Volunteer Activities

The Friends of the San Pedro River organization supported the BLM through a total of 207 educational events during FY 2009 by:

- Conducting 52 interpretive walks.
- Conducting 25 bird walks.
- Sponsoring eleven hikes.
- Sponsoring eleven equestrian rides.
- Sponsoring 52 bird walks at the City of Sierra Vista Environmental Operations Plant (which feeds reclaimed water to the SPRNCA through Murray Springs).
- Conducting fourteen school programs with a total of 323 students.
- Providing funding and access for educational filming by local educator, Mike Foster.
- Providing community presentations and participating in community events to highlight the importance and value of the SPRNCA, such as the International Migratory Bird Day, Spring Fest, and the Fairbank Reunion.
- Operating an information center at the San Pedro House 364 days a year.
- Operating a museum and information center within the San Pedro Riparian NCA at the Fairbank School House approximately 170 days a year.
- Providing monthly articles about the San Pedro Riparian National Conservation Area to the Sierra Vista Herald for publication in the local newspaper.

Volunteer stabilizing 18th Century adobe wall

d. Friends Group:

We are privileged to have a well-established and successful "Friends" group, the Friends of the San Pedro River (FSPR) organization. The FSPR supports the BLM's educational and public outreach program by:

- Staffing an information center at the San Pedro House 364 days a year (closed on December 25 only).
- Staffing the operation of the Fairbank School House museum and information center three days a week for a total of about 170 days a year. Both the San Pedro House and Fairbank School House are located next to the San Pedro River and trail system.
- FSPR have contributed 12,074 hours of volunteer time at a value of about $226,628 (at $18.77/hour) during FY2009.
- The FSPR provided a total of 207 educational events during FY 2009.

4. Science

The San Pedro Riparian National Conservation Area has an abundance of plant and animal species as well as a plethora of cultural and historical resources. The biological and botanical research has helped us determine new ways to manage and restore habitat and to protect key species. This research has also confirmed past and present management actions taken to protect key habitat components. Research has identified species composition, diversity, abundance, and ecological contribution for a variety of botanical, avian, and insect populations. There are approximately 15 ongoing research projects year-round being conducted within the San Pedro Riparian National Conservation Area.

- Over the past five years at least 20 research projects have been completed. These projects are being conducted by BLM scientists as well as scientists from universities and other science agencies.

Results of research studies have been made available to the community. All research is available to the public through their request to the San Pedro Office. Some universities have websites that post their on-going and completed research on the San Pedro Riparian National Conservation Area. Researchers are required under research agreements to provide results of their research. Some research is available to the public in our public information room and at the San Pedro House.

- The BLM wildlife biologist completed a herpetological checklist of the San Pedro Riparian NCA, with printing donated by the Friends of the San Pedro River.

Monitoring species is also an important component to the management, preservation, and enhancement of the San Pedro Riparian National Conservation Area. The ongoing monitoring of upland and riparian vegetation, avian populations, threatened and endangered species, and hydrology is consistently being conducted.

The San Pedro Avian Resources Center is a volunteer-based mist netting bird banding project, headed by the Natural Resource Specialist. This project is just entering its fourteenth year of operation.

- Two banding stations are being operated in the SPRNCA one at San Pedro House and the other by Green Kingfisher Pond.

Banding Yellow-billed Cuckoo at the Garden Wash MAPS station

- The data being collected at these banding stations is contributing to the local knowledge of avian: migration, molt migration, production, and survival.

Along with local knowledge, the data also contributes to a bigger picture. The information gained from these banding stations is playing a major role in management actions for many about every aspect of the continued preservation of the San Pedro Riparian National Conservation Area.

- The data is inputted into national databases both at the Institute of Bird Populations, Point Reyes Station, California, and the bird banding laboratory where population trends, migration paths, and much more can be seen and analyzed.

Beaver (*Castor canadensis*) were reintroduced to the San Pedro Riparian NCA after having been extirpated by fur trappers by 1894. A total of 15 beaver were reintroduced during 1999, 2000, and 2002. By 2008, the estimated beaver population on the Upper San Pedro River was at least 150, based on about 20 colonies with 33 dams on the NCA, with additional beaver reported in Mexico and as far north as Aravaipa Canyon.

- During 2009, the location of beaver dams from 2000-2008 was determined through BLM wildlife biologists' observations and wet/dry mapping data. ArcGIS was used to map the expansion and site fidelity of these dams from 2000-2008.
- A total of six caches (areas of vegetation with beaver herbivory) were monitored during the winter of 2008-2009. Of these, one cache contained only Fremont cottonwood, two caches contained both Freemont cottonwood and Goodding willow, and three caches included Freemont cottonwood, Goodding willow, and seep willow (*Baccharis salicifolia*).

The purposes of beaver reintroduction on the NCA were many. As a keystone species, beaver may have a large influence on community diversity and ecosystem structure through their tree felling and dam building behavior. Beaver dams may increase storage capacity and lead to greater flows during dryer periods, which may result in enhanced flow in intermittent streams. Beaver impoundments may increase the area of riparian habitat, and elevate water tables through groundwater recharge. By functioning as sediment traps, beaver ponds accumulate organic matter, and also reduce erosion potential. By doing so, beaver dams may reduce the sediment carrying capacity of the stream and deposition.

- A general overall increase in the amount of ponded water was noted during the FY 2009.

Ponded water behind beaver dam -- San Pedro River

The annual spring and fall fish monitoring was conducted in April and September by Jerry and Sally Stefferud, Rob Clarkson, Dr. Paul Marsh, and the BLM wildlife biologist.

- Fish numbers were low to moderate, with the remaining two species of native fish, longfin dace (*Agosia chrysogaster*) and desert sucker (*Catostomus clarkii*), documented at the Charleston and Hwy. 90 sites.
- Two additional non-native fish, red shiner (*Cyprinella lutrensis*) and channel catfish (*Ictalurus punctatus*) were also documented for the first time at the Charleston site, although anglers have previously caught sizable channel catfish in the area as early as 2002.

The federally endangered Huachuca water umbel (*Lilaeopsis schaffneriana* var. *recurva*) and southwestern willow flycatcher (*Empidonax trailii extimus*) continue to be monitored on the NCA by EEC, Inc. as required under species specific conservation measures of the biological opinion "Proposed Ongoing and Future Military Operations and Activities at Fort Huachuca."

- Five southwestern willow flycatchers were documented at the MAPS bird banding station near Green Kingfisher Pond by the BLM Natural Resource Specialist.

During June, six springs were monitored by the BLM wildlife biologist and hydro tech for their ability to provide adequate habitat during the driest time of the year for introduction of Gila topminnow (*Poeciliopsis o. occidentalis*), desert pupfish (*Cyprinodon m. macularius*), Chiricahua leopard frog *(Lithobates chiricahuensis*), and Huachuca water umbel, as proposed under the Environmental Assessment "Special Status Species Reintroduction at Six Springs, San Pedro Riparian NCA." The sites were revisited in November with cooperators from Arizona Game and Fish Dept. and U.S. Fish and Wildlife Service.

- White House Well, Horse Thief, Murray, Ben, Frog, and Little Joe Springs were monitored and proven to have adequate water quantity and quality to support reintroduction efforts of four native species, which is scheduled to begin in 2010.

The tenth annual BLM and volunteer wet/dry monitoring effort was conducted on June 21 along the San Pedro River within both the US and for the first time, in Mexico, also during the driest time of year. Maps that result from the wet/dry monitoring effort allow comparison of river conditions over time, the percentage of river that is wet or dry, and establish an important baseline for evaluating the upper reach of the San Pedro River.

- During FY 2009, approximately 50 miles of the Upper San Pedro River were monitored during the wet/dry effort.

Wet - Dry reach of the San Pedro River during June

Annual monitoring done on the SPRNCA in FY 2009 include the following:

- The BLM fisheries biologist conducted the annual thermal monitoring of 12 miles of aquatic habitat in the NCA to determine requirements to support existing habitat for native fish.

- Hydrology and riparian vegetation in the SPRNCA was monitored through on-going research under the direction of Julie Stromberg.
- Permanent upland monitoring plots were established on the SPRNCA beginning in 1987. During FY 2009, 12 permanent pace frequency transects were monitored, representing approximately 2,400 acres. Of the twelve transects completed, eleven transects had statistically significant changes in frequency of selected vegetation from 1987 to 2009. Most notable were significant changes in canopy cover of mesquite (*Prosopis juliflora*) and acacia (*Acacia spp.*). However, significant changes in basal cover of these species were not noted, indicating growth in existing plants from 1987 has occurred, while increased germination and growth of new individuals of these species has not occurred. In addition, several indicator species, including burroweed (*Isocoma tenuisect*a), mesa tansyaster (*Machaeranthera tagetina*), and zinnia (*Zinnia spp*.) have significantly decreased from 1987 to 2009, after more than 20 years of grazing retirement on the NCA. Even with grazing retirement, significant increases in Lehmann lovegrass (*Eragrostis lehmanniana*) were also noted on several transects.
- Proper Functioning Condition (PFC) evaluations were completed on 10 miles of riparian corridor in the SPRNCA during 2009. A total of six sections were evaluated, three each on the San Pedro River and within Curry Draw. The sections on the San Pedro River and within Curry Draw were continuous. From upstream to downstream, the three sections on the San Pedro River consisted of Highway 90 to Government Draw, Government Draw to Escapule Wash, and Escapule Wash to Woodcutter Wash. Overall conditions were found to improve downstream.
- The section from Highway 90 to Government Draw was rated as Nonfunctional. The rational for the Nonfunctional rating included: the presence of continuous bank cutting and erosion, absence of recruitment of riparian species, limited lateral stream movement associated with natural sinuosity, limited floodplain access during normal high flows, and the floodplain and channel characteristics appeared inadequate to dissipate stream energy.
- The Government Draw to Escapule Wash section was ranked as Functional-At Risk and trending downward. This rating was found appropriate because low baseflow conditions were restricting vegetative recruitment, thus compromising channel morphologic conditions and riparian communities at relatively high flow events.
- A Proper Functioning Condition was reported for the section from Escapule Wash to Woodcutter Wash.
- A total of 3 miles were evaluated within Curry Draw. All three miles within Curry Draw were all rated as Proper Functioning Condition. The sections were found to be adjusting to 1996 and previous episodes of down-cutting. Bank stabilization agents were described as being less effective downstream because of the decreasing availability of perennial water. The riparian zone was widening due to the influx of groundwater from the Environmental Operations Park (EOP) operated by the City of Sierra Vista.

Future research on the SPRNCA holds possibilities for the surrounding community as well as for the river itself.

- Preliminary planning for an Ecosystems Services Evaluation Pilot Project (ESEPP) was completed by BLM - Washington Office and San Pedro Project Office staff. BLM and USGS are collaborating on a pilot project to assess the usefulness of ecosystem services valuation to BLM's land use decision making process.
- An Adaptive Management project was proposed for repeat wildlife inventories of the San Pedro Riparian NCA , which were completed in the late 1980's in order to provide baseline information for long-term monitoring and for use in planning processes.

Invasive species found in the SPRNCA were a main focus of eradication in FY 2009:

Russian knapweed (*Acroptilon repens*) control was reinitiated after several years of non-treatment following completion of a Determination of NEPA Adequacy and Pesticide Use Proposal. Russian knapweed is an introduced, deep-rooted, long-lived perennial with rhizomatous roots that also produces biochemicals inhibiting the growth of native plants (allelopathy). These features of Russian knapweed make cultural control difficult, and allow it to out-compete native species and form monocultures that are not conducive to native plant or wildlife species richness.

- A total of five sites of (two acres total) were treated with glyphosate during 2009. Control was successful and complete eradication of Russian knapweed on the NCA seems likely at this time with follow-up treatment in future years.

Giant reed (*Arundo donax*) is a tall perennial introduced from the Old World that reproduces vegetatively by underground rhizomes or through rooting stem pieces. This vegetative growth appears to be well adapted to floods, which may break up individual reed clumps and spread the pieces, which may then sprout and colonize further downstream. Giant reed uses large amounts of water, is capable of growing in dense stands, and damages riparian ecosystems by outcompeting native species, such as cottonwood and willow, for water.

- A total of four small clumps (less than one acre total) of giant reed was stump-cut and treated with glyphosate herbicide. Additional clumps occur in the Escapule inholding within the NCA and contact was made with the Coronado NRCD for follow-up with the private property owners along the river. Eradication of giant reed on the NCA seems likely at this time with follow-up treatment in future years.

Infestations of tamarisk (*Tamarix chinensis,* including related species and hybrids) occur throughout the SPRNCA, with the most severe infestations situated adjacent to the San Pedro River north of the historic town of Fairbank. Isolated populations of tamarisk to the south of Fairbank functionally serve as extended seed sources, increasing potential for further spread along the San Pedro River.

- Tamarisk control was initiated in 2009 through completion of an Environmental Assessment and Pesticide Use Proposals.
- Survey and mapping of 750 acres along the riparian corridor between Hwy 82 and St. David was completed by the Sonoran Institute during spring and early summer of 2009.
- Mapping of tamarisk control units was completed by the BLM fuels specialist. The units included the: Palominas, Hereford, Del Valle, Charleston, Fairbank, Boquillas, and Cienega treatment areas.
- Survey and mapping of approximately 100 acres was completed by BLM staff and fire crew of the San Pedro River floodplain from the International Boundary north approximately 1.75 river miles.

- Herbicide treatment was accomplished by BLM staff and fire crew using cut-stump and foliar spray of approximately four acres of the tamarisk mapped above. Control efforts are proposed to continue for 20 years and beyond.

A small patch of Malta starthistle (*Centaurea melitensis*) was located along the north side of Charleston Road just east of Escapule Road.

- Plants were hand-grubbed, bagged, and removed. This area will likely require yearly monitoring and similar removal of starthistle.

5. Partnerships and Collaborative Relationships

Advisory Council

- An advisory council for the SPRNCA is not in place at this time. Reauthorization of a council has been requested to assist in a new resource management planning process. A committee was in place during the first planning process, which was very successful in establishing goals, objectives, and tasks to meet Public Law 100-696 that established the San Pedro Riparian National Conservation Area.

Cooperative Efforts With Local Governments

We are a key member of the Upper San Pedro Partnership (USPP), a consortium of 21 federal, state, local, and private agencies. The USPP was established for coordination and cooperation in the identification, prioritization and implementation of comprehensive policies and projects to assist in meeting water needs in the Sierra Vista Subwatershed of the Upper San Pedro River Basin. Furthermore, the USPP is responsible for the preparation of annual reports to Congress regarding steps to be taken to reduce overdraft and restore sustainable yield of groundwater in the Sierra Vista Subwatershed by 2011.

Although gains have been made in recent years in reducing the rate of increase of the annual storage deficit and improving ground water conditions in portions of the basin, the cumulative deficit continues to increase, and surface flows reflect a similar trend. Using the 5,850 acre feet value for base flow, the cumulative deficit has grown by 47,900 acre-feet from 2002 to 2008. Continued depletion of aquifer storage will continue to reduce water levels and groundwater flow to the San Pedro River, further threatening the riparian community.

The BLM continues to work closely and cooperatively with our partners, including local governments, state agencies, other federal partners, including the Department of Defense. However, the cumulative deficit, which is now likely to have increased by 50,000 acre-feet since 2002, coupled with downward trends in surface flow and fish population, demonstrates the need to present an accurate description of the problem to Congress and the public.

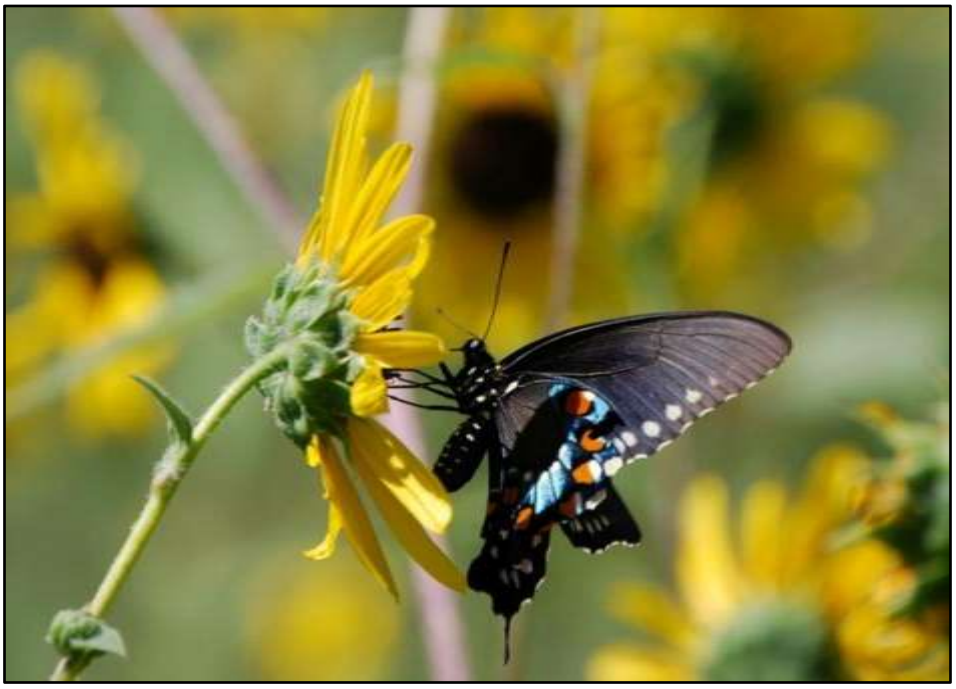
Recent efforts at developing cooperative measures to conserve water in public facilities, recharge of municipal effluent to create a protective "mound" of groundwater between the river and the Sierra Vista water treatment plant, and the commitment of Fort Huachuca to water conservation on and off the base are all positive steps. We are working with Cochise County on an approach for projects involving public facilities or permits that would promote low water use construction and mitigating measures that reduce overall water demand, such as the Cochise Amateur Radio Association Communications Site.

- During FY 2009, staff attended approximately 30 Technical, Political Action, and Executive Committee meetings.
- Staff assisted in the completion of the 321 report to Congress for 2009.

Non-Profit Organizations

Local non-profit organizations that cooperate with BLM and accomplish mutual goals include the following groups:

- Huachuca Audubon Society (HAS) fosters support for the protection of the San Pedro Riparian NCA. HAS is a member of the Upper San Pedro Partnership (USPP), and members attend USPP Technical, Political Action, and Executive Committee meetings.
- The Nature Conservancy (TNC) also fosters support for the protection of the San Pedro Riparian National Conservation Area. To protect the San Pedro River aquifer, TNC supports BLM's efforts to acquire private in-holdings within the NCA boundary, and conservation easements outside the NCA boundary in key open space areas. TNC is also a member of the Upper San Pedro Partnership (USPP), and provides an Upper San Pedro Program Director position who is responsible for organization and workload management for the USPP technical committee.



Pipevine swallowtail at the Saint David Cienega

- Arizona Archaeological Society supports the SPRNCA by monitoring Cultural sites through the site steward program, and by assisting BLM staff in conducting research, inventory, and excavation in the field.
- Daughters of the American Revolution also contributed time in the design and installation of the wildlife landscaping at San Pedro House.
- The Curry Draw Working Group was established as a partnership between Bureau of Reclamation, The Nature Conservancy, City of Sierra Vista, and University of Arizona. The purpose of the working group is to minimize impacts from water reaching the ground surface from the City of Sierra Vista's Environmental Operations

Plant (EOP) at the internationally significant Murray Springs Clovis site. The working group is in the development stage for implementation of a pilot project for maintaining base flows in the San Pedro River. The proposal is for direct injection of water from the EOP through large diameter bore holes that will breach impervious soil layers, effectively cascading water into the Sierra Vista subwatershed regional aquifer.

6. Business Practices

a. Planning

- We currently operate under the San Pedro River Riparian Management Plan and Environmental Impact Statement, and Record of Decision, August 1989.
- Additional lands acquired during completion of the Management Plan identified above are managed under the Safford Resource Management Plan and Environmental Impact Statement, July 1994.
- These two plans will be re-evaluated when the effort to establish a Gila District Resource Management Plan is initiated. No firm date for initiating that planning effort has been established.

7. Manager's Corner

In early 2008, the San Pedro Riparian National Conservation Area the manager of over ten years, Bill Childress, took another position with the Bureau. Throughout 2008, the SPRNCA had been managed by no less than six revolving, 'acting,' managers. On January 5th, 2009, Markian Rekshynskyj became the NLCS manager for both Las Cienegas and San Pedro Riparian National Conservation Area. The most challenging part of being a Manager for both sites is creating enough time to steward the partnerships, meeting with senior officials and coordinating with staff on scheduling projects, and meeting deadlines of the myriad of reports that are due for both sites. Since the Las Cienegas staff is located in Tucson and the San Pedro staff is located in Sierra Vista; accessibility, communication and supervision are challenging. These challenges have been met by both the staff and the manager. I especially commend the staff on their professionalism and ability to perform under stress. In my 25 years of government service, I have never had such a positive goal orientated crew.

The next challenges facing Las Cienegas and San Pedro for FY10 are the integration of both staffs into one unit, to begin work on developing an RMP for San Pedro, creating a Co-operative Management Partnership with both the Friends of San Pedro and the Empire Ranch Foundation to assist us in managing the San Pedro House within the San Pedro Riparian National Conservation Area and the Empire Ranch complex at Las Cienegas, dealing with water depletion in the San Pedro Riparian NCA (already at a critical level), and launching the ARRA projects.